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JOURNAL

OF THE

AMERICAN ORIENTAL SOCIETY.

EDITED BY

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TWENTY-EIGHTH VOLUME.

SECOND HALF.

THE AMERICAN ORIENTAL SOCIETY,
NEW HAVEN, CONNECTICUT, U. S. A.

MCMVII

21842

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On Certain Persian and Armenian Month-Names as Influenced by the Avesta Calendar.—By Dr. LOUIS H. GRAY, Newark, N. J.

THE influence of the Zoroastrian calendar, as of Zoroastrianism itself, was far-reaching, extending not only to the Transoxian regions of Chorasmia and Sogdiana, but to Armenia and Cappadocia, even as the Iranian faith had spread. This is, indeed, no new discovery—it has been known at least since 1836, when Benfey and Stern, in their *Ueber die Monatsnamen einiger alter Völker, insbesondere der Perser, Cappadocier, Juden und Syrer*, 76–120, themselves following Reland's suggestion of exactly two centuries ago (*Dissertationes miscellaneæ*, ii. 129): “examinanda Tibi hæc Cappadocica mensium nomina, lector, exhibeo . . . in iis umbram mensium Persicorum mihi videor detexisse,” demonstrated that the Cappadocian month-names were borrowed, one and all, from the Zoroastrian calendar. Furthermore, Lagarde, in his *Gesammelte Abhandlungen*, 9, 163, and Hübschmann, in various rubrics of his *Armenische Grammatik*, i., have shown the dependence of certain Armenian month-names on the Avesta-Pahlavi system; while Sachau's translation of al-Biruni's *Chronology of Ancient Nations*, 52–53, 56–57, 82–83, 220–225, 384, 425–426, gives the names of the months and other calendrical data of the inhabitants of Chorasmia, Sogdiana, Seistan, Buhārik (?), and Qubā. An additional list of Sogdian month-names is given in three fragments of the Turfan manuscripts published by F. W. K. Müller in his *Die “persischen” Kalendarausdrücke im chinesischen Tripitaka* (*Sitzungsberichte der königlich preussischen Akademie der Wissenschaften*, 1907, 458–465). The Armenian month-names¹ are given in order by Dulaurier, in his *Récherches sur la chronologie arménienne*, 10–14, and the same scholar records not only the Armenian calendar based on the Julian system and dating probably from the period of Constantine the Great (pp. 37–38), as well as

¹ The study of Hagopian on the Armenian months in the Armenian periodical *Banasēr* for 1900 has unfortunately been inaccessible to me.

the month-names of Azaria of Julfa, who flourished early in the seventeenth century (pp. 115-117), but also an Albanian menology of uncertain date (p. 167). There seems to be, however, no discussion in which these scattered data are brought together and summarized, even Marquart, in his *Untersuchungen zur Geschichte von Eran*, ii. 198-201, 213-215, and Ginzel, in his section on the Persian calendar (*Handbuch der mathematischen und technischen Chronologie*, i. 275-309), omitting any detailed comparison. In like manner, neither Sachau, in his *Zur Geschichte und Chronologie von Khirārizm* (*Sitzungsberichte der Wiener Akademie der Wissenschaften*, phil.-hist. Klasse, lxxiii. 471-506), nor Tomaschek, in his *Centralasiatische Studien*, i. *Sogdiana* (*ib.* lxxxvii. 67-184), discusses the calendar of these peoples. Indeed, so vague is our knowledge of the Transoxian language, and so meagre the remains, that any attempt to study the month-names must be largely a matter of conjecture and hypothesis. This difficulty is increased in the case of the Seistanian calendar, which may be Scythic (cf. Justi, in *Grundriss der iranischen Philologie*, ii. 489), and of the Būkhārīk (?) and Qubān systems, both of which, like the Chorasmian and Sogdian, are Transoxian. It is at least clear, however, that the Chorasmian calendar was borrowed from the Avesta system before the invasion of Alexander the Great, and the Sogdian before the revolt of Diodotus in the third century B. C. (Marquart, ii. 201).

Contrariwise, the Zoroastrian calendar, or possibly some system akin to the Old Persian, may perhaps have been current in lands where Mohammedan chronology now rules. I allude particularly to the Baluchi and Afghan calendars. In Baluchistan the mode of reckoning time is entirely Islamic (Mockler, *Grammar of the Baloochee Language*, 120), while in Afghanistan we find two systems of month-names. One of these, in frequent use along the eastern frontier between Afghanistan and India, is of Indian origin (Trumpp, *Grammar of the Paṣṭō*, 364-365), while the other is borrowed from the Mohammedan menology and is as follows (*ib.* 363-364):

<i>Afghan</i>	<i>Mohammedan</i>
Hasan Husain, " (the month of) Hasan and Husain"	Muharram
Safarah	Safar

Vrunba'ī Xōr, "First Sister"	Rabī'-al-awwal
Dvayamah Xōr, "Second Sister"	Rabī'-ath-thānī
Dreyamah Xōr, "Third Sister"	Jumād-al-awwal
Calōramah Xōr, "Fourth Sister"	Jumād-ath-thānī
Da Xudāe Miyāst, "Month of God"	Rajab
Da Šō Qadr Miyāst, "Month of the Night of	
Da Barāt Miyāst, "Power"	Šā'bān
Rōzah, ¹ "Fast"	Ramadān
Da Vrūkai Axtar Miyāst, "Month of the	
Da Vārah Axtar Miyāst, ² "Lesser Fast"	Šawwāl
Miyāni Xāli Miyāst, ³ "Intermediate Month"	Dhu-l-Qa'dah
Da Lōe Axtar Miyāst, "Month of the Greater	
Fast"	Dhu-l-Hijjah

In the preparation of the article on the Persian calendar for Dr. James Hastings's forthcoming *Dictionary of Religion and Ethics*, my attention was directed to this problem the more since I had failed to evaluate it in my section on the same subject in the *Grundriss der iranischen Philologie*, ii. 675-678. While, in a sense, this present study is rather a summary and collocation of results previously attained by others than a presentation of independent researches, yet it has seemed to me that a collection of scattered data might, when combined, throw an increased light on the Avesta calendar itself; and in one or two points, minor though they be, I have perhaps succeeded in making some advance. It is also my pleasant duty to acknowledge with gratitude the generous assistance of M. A. Meillet, of the Collège de France, Paris, in his reply of March 3, 1907, to my queries concerning the Armenian month-names; to the Rev. Dr. Thomas P. Hughes, of Brooklyn, who on February 20, 1907, responded with equal kindness to my request for information concerning the names of the Afghan months; and to Messrs. N. Nazarian and S. Surenian, of New York, who most unselfishly and courteously aided an entire stranger in determining the meaning of the Armenian day-names.

¹ The translation of this and the four names following were kindly supplied me by the Rev. Dr. Thomas P. Hughes, the well-known Afghan scholar.

² These forms are also due to Dr. Hughes.

³ Between "the lesser fast" of 'Id-al-fitr and the "greater fast" of 'Id-ad-duhā'.

I. Fravartin (March-April). None of the calendars affiliated with the Avesta-Pahlavi system show a month-name similar to this, which is transcribed **Φαροναρτης**, **Φαρβαρδιν**, and **Φαρφαρδιν** by Byzantine writers on the Iranian calendar,¹ although the nineteenth day of each month, which bears the same name in the Zoroastrian calendar, is termed **فروند** in Sogdian and **وجن** in Chorasmian. The month is called, instead, simply "New Year," the appellation being borrowed from an Avesta **nava sarədā*, "new year" (Chorasmian **ناؤسرذیح**, Sogdian **ناؤسارچی**, Bukhārik (?)² **نوسرد**, Armenian *Nawasard*, Albanian *Nawasar-dus*). The form of the name is of the more interest in that it represents an older form even than the Pahlavi (*sāl*, "year," cf. Persian **سال**), and may thus be compared with the Ossetic *särde*, *särdü*, *särd*, *särd*, "summer" (Avesta *sarədā*, "year"; cf. Hübschmann, *Etymologie und Lautlehre der ossetischen Sprache*, 55; idem, *Armenische Grammatik*, i. 202; Horn, *Grundriss der neupersischen Etymologie*, 153; Salemann, in *Grundriss der iranischen Philologie*, i. a, 26?). To the same stage of borrowing doubtless belongs the Talmudic **נומרא** (WZKM. viii. 366), the term applied by the 'Abodah Zarah to a Persian festival (Levy, *Neuhebräisches und chaldäisches Wörterbuch*, iii. 389), as well as the *νέον σάρδιν τὸ νέον ἔτος* of Johannes Lydus xxxix. 13. The Avesta-Pahlavi form, however, is represented in the Cappadocian calendar by **Αρταστρη** and its variants (Benfey and Stern, *Ueber die Monatsnamen einiger alter Völker*, 85-89; otherwise, Marquart, i. 63). The Seistanian calendar calls the first month **کوادن**, which may possibly be in honor of the Kavāta of the Avesta (Yasht xiii. 132; xix. 71), the legendary founder of the Kayanian Dynasty (Justi, *Iranisches Namenbuch*, 159), whose home was in Seistan (Yasht xix. 65 sqq.; cf. Geiger, *Ostiranische Kultur*, 99-100, 108, 411). The calendar of Azaria of Julfa calls the first

¹ On these references see Gray, *Byzantinische Zeitschrift*, xi. 468-472, and the same writer's article in *Avesta, Pahlavi, and Ancient Persian Studies in Honour of . . . Sanjana*, 167-175, together with the citations there given.

² "Perhaps the word bears some relation to **بخار**, i. e. Bukhārā," Sachau, 393; otherwise, but less plausibly, Marquart, ii. 199.

month *Šams*, a loan-word from the Arabic شمس, "sun," but the Qubān¹ حلو is unclear to me.

II. *Artavahisht* (April-May). This is represented as a month-name only by the Chorasmian اردوست and the Cappadocian *'Apatora* and its variants (Benfey and Stern, 89-92), although as the name of the third day of each month it finds equivalents in the Chorasmian اردوشت (variant اردوشت) and in the Sogdian ارداخوشت. The Greek writers transcribe the name by Ἀρτιπεσστ, Ἀρτιπεεστ, Ἀρδεμπεεστι, and Ἀρδεμπεας. The Bukhārik (?) name فدی نوسرد apparently represents an Avesta *paiti-nava-sarəθa, "after the new year," but the Sogdian خورشیدیج, خورزنه, حوجن, حرجن (variants حرجن, هو), like the Scistanian هو, is unclear. The Armenian calendar likewise diverges from the Avesta, the corresponding month of its system being named *Hori*, "second month," a derivative of the Georgian *ori*, "two,"² while Azaria of Julfa calls this month *Adam* in honor of the father of the human race. In Albanian the second month was termed *Tulēn*, which, if the Armenian *t* was pronounced *d* at the time of the formation of the Albanian calendar, bears a strong, though perhaps fortuitous, resemblance to the Albanian *delehe*, "juniper" (Meyer, *Etymologisches Wörterbuch der albanesischen Sprache*, 65). The Qubān اوین is unclear to me.

III. *Horvadat* (May-June). This month, which is transcribed *Xoprat* in Greek, is very accurately represented by the Chorasmian هروداد, while the sixth day of each month, which bears the same name in the Avesta-Pahlavi system, is given in Chorasmian, in like manner, by هروداد and in Sogdian by دد. The Cappadocian equivalent is *'Apatorata* and its variants (Benfey and Stern, 92-94). The Sogdian نیسنه (variants نیسنه, نیسنه) is clearly the Assyrian *Nisanu*,

¹ "Kubā was the second largest town of Farghāna, not far from Shāsh," Sachau, 393.

² My thanks for this identification are due to M. Meillet. On the general problem of Caucasic loan-words in Armenian, cf. Hübschmann, *Armenische Grammatik*, i. 396-398.

Hebrew נַפְתָּח (April-May), the divergency of time being doubtless due to retrogression of the calendar at the time when the Sogdians adopted this month-name. The Bukhārīk (?) سافول, قبآن حکش (doubtfully compared by Marquart, ii. 200, with the twelfth Old Turkish month جَقْشَابَاط), Seistanian اوسال, and Albanian *Namoen*, are unclear to me. The Armenian *Sahmi*, however, denotes simply "third month," being derived from the Georgian *sami*, "three," while Azaria of Julfa's *Šbat* is simply the Hebrew شְׁבָת.

IV. Tir (June-July). The month Tir, transcribed *Tēppa*, *Tōppa* in Greek, is represented in the Chorasmian calendar by جیری², while for the day of the same name, the thirteenth of each month, the Chorasmian and Sogdian systems have جیری (read, with the variant, قیری) and قیش respectively. The Sogdian month-name corresponding to Tir is بساق (ساقنچ), بساق, بساقنچ (نَا . . . بساق). This word may possibly be identical with the Persian بساق, "garland of flowers." The Seistanian قیرکیانوا, like the Armenian *Trē* (Lagarde, *Gesammelte Abhandlungen*, 9) and the Cappadocian *Tēpa* and its variants (Benfey and Stern, 94-95), is clearly derived from the Pahlavi *Tir*. The Albanian name of the fourth month, *Yilē*, may possibly be a translation of the old Iranian term, if it may be connected with the Albanian *āl*, *il*, "star" (Meyer, 460). The Bukhārīk (?), Qubān لولیا, and Azaria of Julfa's *Nurai* are unclear to me. The name Tir has been borrowed as a planet-name, it is interesting to note, in the Chinese (Cantonese pronunciation) *Tit*.

¹ Here again my thanks are due to M. Meillet.

² On the confusion of Tištrya, the dog-star, with his original opponent Tir, Mercury, cf. Spiegel's translation of the Avesta, iii. introd. 21-28; Darmesteter, *Le Zend Avesta*, ii. 411-413; Nöldeke, *Persische Studien*, i. 33-36; Justi, *Iranisches Namensbuch*, 325; and Bartholomae, *Altiranisches Wörterbuch*, 652, and the references there given. On Chorasmian *j* for an original Iranian *t*, cf. Nöldeke, *loc. cit.* As Indian parallels may be cited such forms as Prakrit *cittai*, Uriya *cidā* = Sanskrit *tis̄hati*, "stands" (Pischel, *Grammatik der Prākrit-Sprachen*, § 216; Gray, *Indo-Iranian Phonology*, § 223).

V. Amerōdat (July-August). The Zoroastrian month Amerōdat, transcribed *Μερτατ* in Greek, is represented by the Chorasmian month **هەمداد** (variant **ەمەدەد**), while for the seventh day of each month, which bears the same name, the Chorasmian and Sogdian calendars have **ەمەدەن** and **ەمەدەد** respectively. The Cappadocian equivalent is *Ἄμαρτος* and its variants (Benfey and Stern, 95-97), while the corresponding Armenian month is *Kudoc*, “(the month) of crops,” a derivative of *k'adel*, “to gather” (Dulaurier, *Récherches sur la chronologie arménienne*, 12). As M. Meillet kindly informs me, “it is true that, at the period of the origin of the Armenian era, it corresponded to the month of November, but the name existed previously and was in use in an earlier system.” Azaria of Julfa’s name for the fifth month, *Gamar*, is merely a loan-word from the Arabic **قمر**, “moon.” The Sogdian **اشناخندا**, **اشناخنداو** (variants **اشناخنداو**, **اشناخندا**), Seistanian **شناختیج** (**شناختیج** سرینوا, read **سرینوا** by Marquart, ii. 199), Bukhārik (?), and Albanian *Bokavoh*, the corresponding names of the fifth month, are unclear to me. The Qubān **لۇ** is merely the East Turkish name of the same month.

VI. Šatvaīrō (August-September). To the name of this month, which is transcribed *Σαχριούρ* and *Σαρεβαρ* in Greek, corresponds the Chorasmian **اخشريورى**, the homonymous day, the fourth of each month, being termed **اخشريورى** in Chorasmian and **خستشۇر** in Sogdian. The Cappadocian derivative from the Zoroastrian month-name is *Ξανθηρι* and its variants (Benfey and Stern, 97-101). The Sogdian name of the month, given by al-Biruni as **مەرخندا**, **مەرخندا** (**مەرەخندا**, **مەرەخندا**, **غەۋاناج** **خەۋاناج** (variant **خەۋاناج** **غەۋاناج**), is shown by the Turfan **خەۋاناج** to have been “autumn month”; and to have been equivalent to **خەزان** (October), the eighth month in the short-lived calendar introduced by Yazdagird III. (Hyde, *Historia Religionis Veterum Persarum*, 197). The other names of the sixth month, Seistanian **مەریزوا**, **مەریزوا** (read **مەریفوا** by Marquart, ii. 199), Bukhārik (?), Qubān **نۇ**, Armenian *Araç*, Azaria of Julfa’s *Nadar*, and Albanian *Morē*, are unclear to me.

VII. Mitrō (September-October). This month-name, transcribed in Greek Μεχρημα and Μεχρ, is represented in the Persian calendars, curiously enough, only by the Qubān مهر, the Chorasmian and Sogdian equivalents being فغاز اومنى (variants فعکان, فعکان, نفکان) respectively. The former is of unknown signification to me. But the latter, reflected by the Chorasmian فيع, the name of the sixteenth day of each month, is shown by the Turfan form بعکانه to signify "god-month" (on *f* as a dialectic Persian development of *b*, see below, under IX.; and on *buga*, *baya*=*Mithra*, see Marquart, i. 64; ii. 129, 132-134). The name Mitrō is represented in Cappadocian by Μιθρη and its variants (Benfey and Stern, 101-102) and in the Armenian calendar by *Mehekan* (Hübschmann, 194; Lagarde, 9), while Azaria of Julfa represents it by *T'ir*, i. e., *Tir* (see above, under IV.), the discrepancy being due, perhaps, to the retrogression of the calendar. The remaining names of the seventh month, Seistanian مژور, Bukhārīk (?), and Albanian *Bdekuē*, are unclear to me. The Iranian Mihr appears as a borrowed planet-name in the Chinese (Cantonese pronunciation) *Mit*. It is likewise the name of the eighth day of each month in the Armenian calendar.

VIII. Āvān (October-November). This month, transcribed Απαν and Απανημα in Greek, is exactly represented by the Sogdian variants بانج, الابانج (ابانج), although its name for the corresponding day of each month, the tenth, is انجن. The Chorasmian month-name is ياناخن, which was also applied to Āvān as the tenth day of each month, but I am not certain of its meaning. It is probable, however, that it is synonymous with the corresponding Old Persian month Ādukani, "(month of) canal-digging" (cf. Marquart, ii. 198). In Cappadocian the form of Āvān is Απομενα and its variants (Benfey and Stern, 102-108), while in Armenian the eighth month is the "sun-month," *Areg* (Hübschmann, 424). The other month-names, Seistanian هرانوا, Bukhārīk (?), جدل (which can scarcely be the Arabic جدل, "battle," "altercation"), Qubān الـما, Albanian *Carulē* (unless possibly connected with Albanian *gak*, "blood," "vendetta," "death" [cf. Meyer, 136]), and Azaria

of Julfa's *Dam*, are unclear to me. It might indeed be suggested that the latter name is the Persian دم “breath,” “wind,” and that it was adopted in allusion of the change of the monsoon from the northeast to the southwest at this season of the year; but the uncertainty of the entire problem, and Julfa's inland situation, near Isfahan, render such an explanation very hazardous.

IX. *Ātarō* (November-December). The Chorasmian name of this month, transcribed *Ādāp*, *Ādēp*, *Ādēpma* in Greek, is أدو (read أدو, variants أدو, أري), and the ninth day of each month, which bears the same name in the Zoroastrian calendar, is called أدو (read أدو) in Chorasmian and أتس in Sogdian. The Sogdian name of the ninth month is فوغ (Turfan form بوغىخ), a dialectic form corresponding to Avesta *baya*, Old Persian *baya*, “god,” represented in New Persian by the Ferghanish فخ, “idol” (Horn, in *Grundriss der iranischen Philologie*, i. b, 78). The Cappadocian equivalent is *Aθpā* and its variants (Benfey and Stern, 108-109), while the Armenian name of the ninth month, *Ahekun*, is likewise derived from the Avesta-Pahlavi appellation (Hübschmann, 95; Lagarde, 9). Azaria of Julfa's name, *Hamīr*, is the Arabic أمير, but the Seistanian اركيادوا (unless read, with Marquart, i. 64; ii. 199, “month of fire-times”), the Bukhārīk (?), هیات, the *Qubān*, and the Albanian *Bondokē*, are unclear to me.

X. *Dīn* (December-January). This month-name, transcribed *Δημα* and *Nrau* (*ντ*=δ, as in Modern Greek) in Greek, represents the Avesta *daθušō*, “(month) of the Creator” (Gray, in *Grundriss der iranischen Philologie*, ii. 677, and the references there given), and is, therefore, equivalent to Pahlavi *Aūharmazd* and Avesta *Ahura Mazda*. It is, accordingly, accurately represented by the Chorasmian دیمَرْد (variant دیمَرْد), while the first day of each month, *Aūharmazd* in the Zoroastrian calendar (corresponding to *Aramazd*, the fifteenth day of each Armenian month), is called بیمَرْد in Chorasmian and خرمَرْد in Sogdian, and is borrowed in the Chinese planet-name *Wūn-mut-sū* (Cantonese pronunciation). The eighth, fifteenth, and twenty-third days of each month, termed *Dīn pa Ātarō*, *Dīn pa Mitrō*, and

Dīn pa Dīn in Pahlavi, are called دَنْ and دَسْ in Chorasmian and Sogdian respectively; and the Iranian name is also closely followed by the Cappadocian *Δαθούσα* and its variants (Benfey and Stern, 109–110). The Sogdian name for the tenth month is میش بوجیخ, مرسافوغ, مسافوغ (variants مسافوغ), “great god,” the fitting appellative of Ormazd, especially as his month comes after that of Ātarō, of whom he is, in Avesta mythology, the father (cf. *Yasna* xxxvi. 3; lxv. 12; *Siroza* i. 9; ii. 9; *Yasht* xix. 46, 49; *Gah* i. 9).¹ The word فوغ has already been discussed. The term مسا is to be equated with Avesta, Pahlavi, *Gabri mās*, “great,” *Nāyīnī mās*, *Samnānī mesū* (Horn, in *Grundriss der iranischen Philologie*, i. b. 17; for another interpretation, see Marquart, ii. 198–199). The *Bukhārīk* (?) سیون is apparently the Hebrew נִינָה, the ninth month, calendrical retrogression again playing a part. The *Aram* of Azaria of Julfa is merely the name of the eponymous hero of Armenia. The Seistanian کریشت, *Qubān* قبا, and Albanian *Oreli* are unclear to me; while the Armenian *Marēr* (for **Marear*) has been equated with the Avesta *Maiḍyāiryā*, “mid-year” (Marquart, ii. 205).

XI. *Vohūman* (January–February). This month-name, transcribed Πεχμαν and Μπαχμαν (μ π=β, as in Modern Greek) in Greek, seems to find its equivalent only in the Chorasmian أشمن (variants ارممن, اخمن) and in the Cappadocian Οσμαν and its variants (Benfey and Stern, 110–113; Marquart, ii. 215); while the Sogdian has زیمند (variants زیمند, زیمند, زیمنیخ زیمنیخ), whose meaning is unknown to me. Moreover, the corresponding day of each month, the second, is represented in Chorasmian and Sogdian by ارمین and جهینز respectively. Equally uncertain are the *Bukhārīk* (?) حسند, *Qubān* عن, Albanian *Exna* and Azaria of Julfa’s *Ordan*. The Seistanian کرسن, on the other hand, seems to represent the Karsna

¹ Cf. the Old Persian sequence of the months Āθiyādiya, “worship of fire,” and Anāmaka, “nameless,” (i. e. sacred to the ineffable Aūra-mazda).

of Yasht xiii. 106, 108, who may possibly have been the eponymous hero of the Qāren dynasty, which played a prominent part in the Arsacid and Sassanid periods (Darmesteter, *Le Zend-Avesta*, ii. 536, note 212); while the Armenian name of the eleventh month, *margat*, seems to mean "(month) of meadows," although Marquart, i. 64, dissents from this etymology, considering it a loan-word from the Old Persian month-name (preserved only in the New Susian text, Bh. iii. 43, under the form *Margazanaš*) *Margazana*, "brood of birds." The Sogdian form of Vohūman was *Vunxān*, preserved also in the Chinese loan-name of the planet Mars, *Wen-Hou* (Cantonese pronunciation).

XII. *Spandarmaṭ* (February-March). The name of the twelfth month, transcribed 'Ασφανδαρηματ, 'Ασφανταρηματ, 'Ασφανταρ, and Ανφανταρ in Greek, is represented by **اسپندارجی** in Chorasmian, while the fifth day of each month, which bears the same name in the Zoroastrian calendar, appears in Chorasmian as **اسپندارمذ**, and as **سبندارمذ** in Sogdian. The Sogdian (variants **اخشوميچ**, **خشوم**, **خشوص**) is very uncertain in meaning, although it is plainly traceable in the full Chorasmian name for this month **اسپندارجی فوشوم**. We know that "on the last day of this month the Sughdians cry over those who died in past times, they lament over them and cut their faces. They lay out for them dishes and food, as the Persians do in *Farwardajān*. For the five days, which are the ἡμέραι κλοπιμαῖς to the Sughdians, they fix at the end of this month" (al-Biruni, *Chronology of Ancient Nations*, tr. Sachau, 222; cf. 57). Hazardous though it be to operate with such scanty material, it may be suggested that in **خشوم**, if it be an abbreviation of **فوخشوم**, we may possibly have a derivative of the Sogdian and Chorasmian verb corresponding to the Modern Persian **بخشنودن**, "forgive" (for Sogdian *f*=Modern Persian *b*, see above, under IX.) and to the Judæo-Persian **בָּוְכָשָׁאֵיד** (cf. Horn, *Grundriss der neuopersischen Etymologie*, 43). The Cappadocian equivalent of *Spandarmaṭ* is **Σονδαρα** and its variants (Benfey and Stern, 113-115), while the Armenian name of the corresponding month is *Hrotiç*, a loan-word from the Pahlavi **fravartakān*, "the (five epagomenal days) dedi-

cated to the Fravašis" (Hübschmann, 184–185; Lagarde, 163).¹ The Seistanian سارو (unless it be the Modern Persian سارو, "starling"), Bukhārik (?), Qubān اوْناء, Azaria of Julfa's Nirhan, and Albanian *Baxneai* are unclear to me.²

The names of the days in the Chorasmian and Sogdian calendars show many instances of borrowing from the corresponding day-names of the Zoroastrian system. Though the list of the Chorasmian and Sogdian names of the days may conveniently be found both in Sachau's translation of al-Biruni's *Chronology of Ancient Nations*, 56–57 and in Ginzel's *Handbuch der mathematischen und technischen Chronologie*, i. 307–308, the following list of day-names, restricted to appellations borrowed directly from the Zoroastrian calendar, may be found of use:

1. Pahlavi Aūharmazd=Chorasmian ریمژد, Sogdian خرمژد;
3. Pahlavi Arṭavahišt = Chorasmian اردوشت, Sogdian اخشیوری ارداخوشت;
4. Pahlavi Šatvaīrō = Chorasmian خستشور;
5. Pahlavi Spendarmat=Chorasmian اسپندارجی, Sogdian سپندارمن;
6. Pahlavi Horvadat=Chorasmian هرودان (?);
7. Pahlavi Amerōdat=Chorasmian همدادان, Sogdian مرد;
- 8, 15, 23. Pahlavi Din (pa Ātarō; pa Mitrō; pa Dīn)=Chorasmian دن, Sogdian دست (see above, under X.);
9. Pahlavi Ātarō=Chorasmian او (read او), Sogdian اتس;
11. Pahlavi Xūršēt=Chorasmian اخیر, Sogdian خویر;
12. Pahlavi Mäh=Chorasmian ماه, Sogdian مان;
13. Pahlavi Tir=Chorasmian جیزی, Sogdian غش;
14. Pahlavi Gōš=Chorasmian غوشت; 17. Pahlavi Srōš=

¹ This suggests a still more daring tentative explanation of the Sogdian خشوم than the one very timidly ventured above, namely, that it represents a derivative of Avesta *xšvaš*, "six," *xštūm*, "for the sixth time," as the five epagomenal days plus the last day of the twelfth month for the connecting link. Marquart, ii. 198, however, connects the name with the Avesta *xšnaoma* "contentment."

² Allusion may be made in this connection to the names of months and days substituted by Yazdagird III. for the old religious appellations. The list may conveniently be found in Hyde, 195–200, with full elucidation, and is, therefore, omitted here.

Chorasmian اسروف (? read اسروش ?), Sogdian سرش ; 18. Pahlavi Rašnū=Chorasmian رشن. Sogdian رسن ; 19. Pahlavi Fravartīn=Sogdian فروذ (? cf. Hübschmann, 185) ; 21. Pahlavi Rām=Chorasmian رام, Sogdian امن ; 22. Pahlavi Vāt=Chorasmian and Sogdian دینی, واد ; 24. Pahlavi Dīn=Chorasmian دینی, Sogdian دین ; 25. Pahlavi Arṭ=Chorasmian (Nöldeke 34), Sogdian ارذخ ; 26. Pahlavi Āštāt=Chorasmian اشتاذ, Sogdian استاذ ; 27. Pahlavi Āsmān=Chorasmian اسمان, Sogdian سمن ; 28. Pahlavi Zamyāt=Sogdian راجید (read راجید) ; and 29. Pahlavi Māraspānd=Chorasmian موسبند.

The names of the remaining Chorasmian and Sogdian days are too uncertain in meaning for discussion here; and in like manner, the Sogdian names of the five epagomenal days (al-Biruni, 57) and the Chorasmian names of the six *gāhāmbārs*, or festivals in the course of the year (al-Biruni, 225, cf. 425-426; and Roth, ZDMG. xxxiv. 716-717, even when compared with their Zoroastrian equivalents, require a deeper investigation, and probably a far greater knowledge of the living dialects of these regions than we at present possess.

Like the Avesta, Chorasmian, and Sogdian calendars, the Armenians also named the days of their months, instead of numbering them, as among the ancient Persians (cf., on the possible adoption of the Avesta system of day-names by the Achæmenians, West, *Sacred Books of the East*, xlvi. introd., pp. 44, and *Academy*, xlix. 348; Marquart, ii. 210-211). Although Christian and geographical appellations are found among them, Zoroastrian influence is evident in at least five names: *Mihr*, the eighth day (corresponding to *Mitrō*, the seventh month and sixteenth day of each month in the Zoroastrian calendar); *Aramazd*, the fifteenth day (corresponding to *Aūharmazd*, the first day of each month, and to *Dīn*, the tenth month and twenty-fourth day of each month in the Zoroastrian calendar); *Anahit*, the nineteenth day (corresponding to the well-known goddess Anāhita of the Avesta); *Npat*, the twenty-sixth day (corresponding to the Indo-Iranian water-deity Apām Napāt, but confused with the name of a mountain in Armenia, cf. Spiegel, *Eranische Alterthumskunde*, i. 173, ii. 54); and

Vahagn, the twenty-seventh day (corresponding to *Vahrām*, the twentieth day of each month in the Zoroastrian calendar).

The list of the Armenian day-names, which seems to be little known, is given as follows in Alishan's Armenian "Ancient Faith of the Armenians," 143-144, together with the supplementary translation of some of the terms furnished me by the courtesy of Messrs. Nazarian and Surenian: 1. *Areg* ("sun," corresponding in name to the eighth Armenian month and the eleventh Avesta day); 2. *Hrand* ("earth mixed with fire"); 3. *Aram* (identical with the name of the tenth month of Azaria of Julfa); 4. *Margar* ("prophet," i. e., St. Sylvanus; cf. Acts, xv. 32); 5. *Ahrank'* ("half-burned"); 6. *Mazdel* or *Mazt'el*; 7. *Astlik* ("Venus"); 8. *Mihr* ("Mithra"); 9. *Jopaber* or *Xrovaber* ("tumultuous"); 10. *Murç* ("triumph"); 11. *Erezhan* or *Erezkan* ("hermit"); 12. *Ani* (name of an ancient fortified city of Armenia); 13. *Parxar*; 14. *Vanat* ("host, refectioner of a monastery"); 15. *Aramazd* ("Ahura Mazda"); 16. *Mani* ("beginning"); 17. *Asak* ("beginningless"); 18. *Masis* (the Armenian name of Mount Ararat); 19. *Anahit* ("Anāhitā"); 20. *Aragac* (name of a mountain in Armenia); 21. *Gorgor* or *Grgur* (name of a mountain in Armenia); 22. *Kordi* or *Korduik'* (a district in ancient Armenia regarded as the original home of the Kurds); 23. *Cmak* ("east wind" or "cool places in forests"); 24. *Lusnak* ("half-moon"); 25. *Crōn* or *Spīur* ("dispersion"); 26. *Npat* ("Apām Napāt"); 27. *Vahagn* ("Vahrām"); 28. *Sēin* ("mountain"); 29. *Varag* (name of a mountain in Armenia); 30. *Gišeravar* ("the planet Venus after sunset"). Both in this calendar and in Azaria of Julfa's system the five epagomenal days are termed simply *Aveleac*, "redundant, superfluous."